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(54) Title: METHODS AND COMPOSITIONS FOR P2X RECEPTOR CALCIUM ENTRY CHANNELS AND OTHER CALCIUM ENTRY MECHANISMS

(57) Abstract: This invention relates generally to a method of increasing cytosolic Ca^{2+} levels in mammalian cells comprising contacting P2X receptor Ca^{2+} entry channels or any and all other Ca^{2+} entry channels or mechanisms on the cell with an effective amount of a small molecule, and a composition comprising the small molecule in a delivery system. The invention has broad applicability in the pharmaceutical industry as a method of treating airway diseases (such as cystic fibrosis and asthma), ailments of the lung and airways (such as those caused by common cold pathogens or allergens in allergy), kidney diseases and renal hypertensive disorders (such as polycystic kidney disease and salt-sensitive hypertension syndromes), and endocrine disorders (such as diabetes).

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